

Pranav Minasandra

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Interests	Novel and generally applicable theories of behaviour in animals; methods to explore behavioural dynamics. I am particularly interested in the dynamics of behaviour at the intersection of multiple timescales, and the <i>behavioural algorithms</i> used by animals to express individual, collective, and social behaviour.	
Employment	Max Planck Institute of Animal Behaviour, Konstanz, Germany Postdoctoral researcher; IMPRS-QBEE Postdoc Awardee.	2024 - now
Education	Max Planck Institute of Animal Behaviour, Konstanz, Germany PhD [Dr. rer nat] <i>magna cum laude</i> - International Max Planck Research School of Quantitative Behaviour, Ecology, and Evolution. Thesis: “ <i>Exploring sequences of behaviour across scales and species.</i> ”	2020 - 2024
	Indian Institute of Science (IISc), Bengaluru, India - Master of Science in Biology - Bachelor of Science (Research) in Biology	2015 - 2020
Publications	<ol style="list-style-type: none">1. Minasandra, P., Grout, E. M., Brock, K., Crofoot, M. C., Demartsev, V., Gersick, A. S., Hirsch, B. T., Holekamp, K. E., Johnson-Ulrich, L., Nayak, A., <i>et al.</i> Behavioral sequences across multiple animal species in the wild share common structural features. <i>PNAS</i>. doi:10.1073/pnas.2503962122 (2025).2. DeNicola, V., Mezzini, S., Bursac, P., Minasandra, P. & Cagnacci, F. Effects of vasectomy on breeding-related movement and activity in free-ranging white-tailed deer. <i>Movement Ecology</i>. doi:10.1186/s40462-025-00554-5 (2025).3. Minasandra, P., Jensen, F. H., Gersick, A. S., Holekamp, K. E., Strauss, E. D. & Strandburg-Peshkin, A. Accelerometer-based predictions of behaviour elucidate factors affecting the daily activity patterns of spotted hyenas. <i>Royal Society Open Science</i> 10, 230750. doi:10.1098/rsos.230750 (2023).4. Grout, E. M., Ortega, J., Minasandra, P., Quin, M. J., Crofoot, M. C., Strandburg-Peshkin, A. & Hirsch, B. T. Whole Group Tracking Reveals That Relatedness Drives Consistent Subgrouping Patterns in White-Nosed Coatis. <i>Animal Behaviour</i> 216, 175–193. ISSN: 0003-3472. doi:10.1016/j.anbehav.2024.08.010 (2024).5. Kunjar, S., Strandburg-Peshkin, A., Giese, H., Minasandra, P., Sarkar, S., Jolly, M. K. & Gradwohl, N. Link updating strategies influence consensus decisions as a function of the direction of communication. <i>Royal Society Open Science</i> 10, 230215. doi:10.1098/rsos.230215.6. Minasandra, P. & Isvaran, K. Truncated power-law distribution of group sizes in antelope. <i>Behaviour</i> 157, 541–558. doi:10.1163/1568539X-bja10012 (2020).	
Awards and fellowships	IMPRS Postdoctoral Award 6 months of pay at the scale of a postdoctoral researcher. [32,350 €]	2024-
	ISBE Travel Award 2500 AUD [≈1,500 €].	2024

	DAAD - Graduate Student Scholarship Programme Nominated after evaluation of my proposal. [≈60,000€]	2020 - 2024
	Kishore Vaigyanik Protsahan Yojana Govt. of India scholarship for exceptional undergraduates in science. <i>All India Rank : 135</i> Includes stipend and contingency	2015 - 2020
Mentorship	Amlan Nayak <i>Master's thesis:</i> Spatial variation of vigilance in meerkats. Ananya Passi <i>Summer research:</i> Mathematical modelling of habitat use and population dynamics.	
Teaching	Introduction to Git <i>Instructor and organiser:</i> Biannual workshop offered at the MPI of Animal Behavior. Introduction to remote code servers like GitHub <i>Instructor and organiser:</i> Biannual workshop offered at the MPI of Animal Behavior. L^AT_EX for academic documents <i>Instructor and organiser:</i> Annual workshop offered at the MPI of Animal Behavior. Quantitative Ecology: Research Design and Inference <i>Teaching assistant:</i> Taught coding in R, conducted several classes, graded assignments, managed course website.	2019
Talks and posters	[Invited] CES Seminar Series <i>Indian Institute of Science, Bangalore</i> “Exploring sequences of behaviour in the wild across scales and species” International Society of Behavioural Ecology Meeting <i>Melbourne, Australia</i> “Sequences of behaviour show a common statistical structure across species” Gessellschaft für Primatologie Annual Conference <i>Konstanz, Germany</i> “How animals behave: Sequences of behavior show a common statistical structure across species” Descriptive & Normative Models of Collective Behaviour <i>School of Mathematics, University of Leeds</i> “Looking into hyena daily activity patterns using accelerometers” Animal Behaviour Society - Virtual Seminar 2021 “Behavioural classifier provides insights into spotted hyena behaviour”	2024 2024 2024 2022 2021
Technical skills	<i>Programming languages and related</i> Python, Julia, R, Bash, L ^A T _E X, and C. HTML, CSS, and git. <i>Specialised computational skills</i> Parallel processing; Machine learning; Front-end development in R Shiny ; Agent-based models. <i>Mathematical modelling</i> Dynamical (PDE) models incorporating spatial and stochastic variables; Non-linear dynamics, including population- and evolutionary dynamics; Probability models; Numerical simulations of all the above.	

References

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